

Status of Claims

Claims 1 – 20 and 22 – 25 are pending.

Claims 1 – 20 and 22 – 25 stand rejected.

Claims 26 – 29 are newly added.

Remarks/Arguments

Reconsideration of this application is requested in view of the following remarks and accompanying amendments.

Claim Rejections – 35 U.S.C. § 103

Claims 1-20 and 22-25 stand rejected under 35 U.S.C. § 103 as being unpatentable over Zigmond et al. (U.S. patent 6,698,020) in view of Schaffer (U.S. patent 7,051,352) in further view of Ali (U.S. published application 2002/0199194). Applicant respectfully traverses these rejections for at least the following reasons.

Regarding claim 1, the Office action asserts that Zigmond in combination with Schaffer teaches all steps except “determining viewing preferences using... one or more known program traits and one or more hidden or associated program traits.” The Office action further asserts that Ali cures this deficiency by teaching “selecting content for a user based on... inferred user preferences based on known program traits.” Even assuming, *arguendo*, that Zigmond and Schaffer teach the steps and features suggested by the Examiner, the combination of these references with Ali fails to render obvious claim 1 at least because Ali does not disclose using one or more hidden *or associated program traits*.

Ali discloses a system that selects content for the user based on either collaborative filtering or adaptive filtering. The Examiner appears to assert that the collaborative filtering disclosed in Ali teaches the step of the present invention of “determining viewing preferences

using... one or more hidden or associated traits”. Applicant respectfully disagrees. On the bottom of page 5 and top of page 6 of the Office action, the Examiner likens the claimed hidden program traits and associated program traits to the correlation factors disclosed in paragraphs [0039]-[0062] of Ali. Ali discloses calculating correlation factors by measuring the correlation of many users’ ratings of programs. As the Examiner states, “Ali’s system takes the input of thousands of other users and calculates correlation factors that are used to select new content.” Hidden program traits include traits that are detected whenever there exists a strong co-relation between any two traits present in different programs (*see, e.g.* paragraph [0094]). In contrast, the associated traits of the present invention involve creating a *new trait* from the observance of a user’s viewing habits when combined with other traits. As disclosed in paragraph [0086]:

“For example, a user would have a certain liking for any given Seinfeld episode, and a certain liking for any premiere sitcom being aired for the first time. However, its liking for a premiere episode of Seinfeld may be sufficiently large enough to *require an additional trait, “new Seinfeld” to fully explain its liking for a premiere episode of Seinfeld.*”
(emphasis added)

A detailed reading shows associated program traits include traits that provide greater predictive accuracy of a user’s viewing habits than simply the combination of the individual traits. Associated program traits cannot be calculated by observing the input of other users in the way that the correlation factors of Ali are calculated. In contrast to the correlation factors of Ali, the associated trait representing a certain user’s liking of a specific show has to be refined by regression analysis of that specific user’s habits rather than simply observing the correlation of traits in the viewing habits of many users. As explained in paragraph [0087], if only the liking for the individual traits of the user are considered, a user’s preference for a specific show on a specific channel, or any other anomalous liking trait specific to that user for that matter, would be unexplainable. The disclosure of Ali fails to address this problem and fails to teach or suggest the improved method of the claimed invention.

Accordingly, Ali fails to cure the deficiencies of the primary reference Zigmond in combination with the secondary reference Schaffer. Withdrawal of this 35 U.S.C. § 103 rejection is requested. Applicant also requests reconsideration and removal of the rejections of claims 2-13 and 24 at least by virtue of these claims' ultimate dependence from patentably distinct base claim 1.

Independent claim 14 recites similar features and limitations and is likewise patentable. Reconsideration and removal of the rejection of claim 14 is requested for at least the forgoing reasons. Applicant also requests reconsideration and removal of the rejections of claims 15-20, 22, 23 and 25 at least by virtue of these claims' ultimate dependence from patentably distinct base claim 14.

Regarding claims 24 and 25, the Office action asserts that Zigmond, Schaffer and Ali teach "determining viewing preferences by performing a regression analysis based on the stored data and the one or more known program traits." On page 11 of the present Office action, the Examiner asserts that Ali renders this step obvious "based on the user selections and the features that those selections contain, new content representing the predicted user viewing preference is chosen, [0076]-[0079]".

Applicant respectfully traverses this rejection. Ali discloses a system that keeps a tally of how often a feature of an item occurs in a population of related items, and the rating given to the item by the user (*see*, paragraphs [0076]-[0088]). The disclosure of Ali, however, only discloses using a method for inferring feature ratings based on *predefined attributes* (*see*, e.g. paragraphs [0082], [0088]). In contrast, the regression analysis disclosed in the present invention beneficially introduces *additional traits, either associated or hidden, to improve the determination of a viewer's preferences if the error identified in the regression process does not converge to 0 or some other acceptable value*. The references Zigmond,

Schaffer, and Ali, each separately and in combination, fail to teach, suggest, or disclose the beneficial regression process of claims 24 and 25. For at least these further reasons, claims 24 and 25 patentably distinguish over the prior art of record. Reconsideration and removal of these 35 U.S.C. § 103 rejections is respectfully requested.

Newly added claims 26 and 27 recite the additional feature that “performing said regression analysis results in the introduction of additional traits used to improve the determination of the viewer’s preference.” Support for these claims may be found throughout the specification and figures, for example in paragraphs [0091]-[0093] and FIG. 7. No new matter has been added. Claims 26 and 27 emphasize a difference between the claimed inventive method and Ali disclosure. Specifically, while the adaptive filtering algorithm implemented in Ali specifically utilizes a set of predefined attributes (*see*, paragraph [0082]), the present invention introduces additional traits to improve the determination of the viewer’s preference in a situation where the average error in the regression analysis does not converge (*see*, paragraphs [0091]-[0092]).

Newly added independent claim 28 and dependent claim 29 recite additional features of the present invention including creating multiple profiles corresponding to multiple viewers. Support for these claims may be found throughout the specification, for example in paragraphs [0211]-[0226] and in FIG. 35. No new matter has been added.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically

stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Conclusion

Applicant believes they have addressed all outstanding grounds raised by the examiner and respectfully submits the present case is in condition for allowance, early notification of which is earnestly solicited.

Should there be any questions or outstanding matters, the examiner is cordially invited and requested to contact applicant's undersigned attorney at his number listed below.

Respectfully submitted,



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